[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0502; Directorate Identifier 2010-SW-097-AD]

RIN 2120-AA64

Airworthiness Directives; Aeronautical Accessories, Inc. High Landing Gear Forward Crosstube Assembly

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Aeronautical Accessories, Inc. (AAI) high landing gear forward crosstube assemblies (crosstubes) installed on Agusta S.p.A. (Agusta) Model AB412 and AB412EP; and Bell Helicopter Textron, Inc. (Bell) Model 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP helicopters during production or based on a supplemental type certificate (STC). This proposed AD is prompted by two reports from the field of failed crosstubes. The proposed actions are intended to prevent failure of a crosstube, collapse of the landing gear, and subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to http://www.regulations.gov. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the "Mail" address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

EXAMINING THE AD DOCKET: You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact Aeronautical Accessories, Inc., P.O. Box 3689, Bristol, TN 37625-3689, telephone (423) 538-5151 or (800) 251-7094, fax (423) 538-8469, or at http://www.aero-access.com. You may review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Michael Kohner, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5170; email 7-avs-asw-170@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

We propose to adopt a new AD for AAI crosstubes, part number (P/N) 212-321-103, installed on Agusta Model AB412 and AB412EP helicopters, and Bell Model 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP helicopters, during production or under STC SR01052AT. This proposal would require creating a component history card or equivalent record, determining the total number of landings, and continuing recording the

number of landings for each crosstube. This proposal would also require certain recurring visual, dimensional, and fluorescent penetrant inspections of each crosstube. This proposal would require repairing damaged crosstubes that are within acceptable limits. If there is a crack, or any corrosion or a nick, scratch, dent, or any other damage outside the maximum repair damage limits, this proposal requires, before further flight, replacing any unairworthy crosstube with an airworthy crosstube. This proposal is prompted by two reports from the field of failed crosstubes. This condition, if not corrected, could result in collapse of the landing gear, and subsequent loss of control of the helicopter.

FAA's Determination

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

Related Service Information

We reviewed AAI Alert Service Bulletin (ASB) No. AA-08055, Revision B, dated August 12, 2009, which specifies establishing a takeoff/landing history, recurrent visual and fluorescent penetrant inspections of the crosstubes, and dimensional inspections of the skid gear. We have also reviewed AAI Instructions for Continued Airworthiness (ICA) for Crosstubes, Report No. AA-01136, Revision K, dated February 15, 2012, which contain the information necessary for inspection and maintenance of each crosstube installed on the Agusta and Bell helicopters.

Proposed AD Requirements

The proposed AD would require:

- Within 50 hours time-in-service (TIS), creating a component history card or equivalent record for each affected crosstube, and determining and recording the total number of landings. If the landing information is unavailable, estimating the number by multiplying the airframe hours TIS by a factor of 10. Continue to count and record the number of landings for each crosstube. For the purposes of this AD, a landing would be counted anytime the helicopter lifts off into the air and then lands again with any further reduction of the collective after the landing gear touches the ground.

- At specified intervals, using a 10X or higher magnifying glass and a strong light, inspecting each crosstube for a crack. If there is a crack, replacing the crosstube with an airworthy crosstube.

- At specified intervals, determining the horizontal deflection of each crosstube from the centerline of the helicopter (BL 0.0) to the outside of the skid tubes. If the crosstube measures outside the limits, replacing the crosstube with an airworthy crosstube.

- At specified intervals, removing each crosstube and performing a fluorescent penetrant inspection of each crosstube for a crack, any corrosion, a nick, scratch, dent, or any other damage. If there is a crack, replacing the crosstube with an airworthy crosstube. If there is any corrosion or a nick, scratch, dent, or any other damage repairing the crosstube to an airworthy configuration if the damage is within the maximum damage limits, or replacing with an airworthy crosstube.

Differences between this Proposed AD and the Service Information

The service information uses the term “flight hours.” We use “hours time-in-service.”

Costs of Compliance

We estimate that this proposed AD would affect 115 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD:

- Creating a historical record and determining the number of landings would require .5 work hour at an average labor rate of $85 per hour for a cost per helicopter of $42 and a cost to the U.S. operator fleet of $4,830 per inspection cycle.
- Preparing and inspecting the crosstube would require 8.5 work hours at an average labor rate of $85 per hour for a cost per helicopter of $722 and a cost to the U.S. operator fleet of $83,030 per inspection cycle.
- Performing the dimensional inspection of the skid gear would require 1 work hour at an average labor rate of $85 per hour for a cost per helicopter of $85 and a cost to the U.S. operator fleet of $9,775 per inspection cycle.
- Fluorescent penetrant inspecting the crosstube would require 24 work hours at an average labor rate of $85 per hour for a cost per helicopter of $2,040 and a cost to the U.S. operator fleet of $234,600 per inspection cycle.
- If required, replacing a crosstube with an airworthy crosstube would require 10 work hours at an average labor rate of $85, required parts will cost $9,315, for a cost per helicopter of $10,165.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

AERONAUTICAL ACCESSORIES, INC. (AAI): Docket No. FAA-2012-0502; Directorate Identifier 2010-SW-097-AD.

(a) Applicability.

This AD applies to high landing gear forward crosstube assembly (crosstube), part number (P/N) 212-321-103, installed on Agusta S.p.A. Model AB412 and AB412EP and

Bell Helicopter Textron, Inc. Model 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP helicopters, certificated in any category.

(b) Unsafe Condition.

This AD defines the unsafe condition as failure of the landing gear crosstube which could result in collapse of the landing gear and subsequent loss of control of the helicopter.

(c) Compliance.

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(d) Required Actions.

(1) Within 50 hours time-in-service (TIS) after the effective date of this AD:

(i) Create a component history card or equivalent record for the crosstube by following the Accomplishment Instructions, Part A, paragraph 1., of AAI Alert Service Bulletin No. AA-08055, Revision B, dated August 12, 2009 (ASB).

(ii) Determine and record on the component history card or equivalent record the total number of landings for the crosstube. If the landing information is unavailable, estimate the number by multiplying the airframe hours TIS by 10. Continue to count and record the number of landings for the crosstube. For the purposes of this AD, a landing would be counted anytime the helicopter lifts off into the air and then lands again with any further reduction of the collective after the landing gear touches the ground.

(2) Within 50 hours TIS after the effective date of this AD or before reaching a total of 7,500 landings on any crosstube, whichever occurs later:

(i) Prepare the crosstube inspection areas as described in the Accomplishment Instructions, Part B, paragraphs 1. through 5. and Figure 1, of the ASB.

(ii) Using a 10X or higher power magnifying glass and a bright light, visually inspect the prepared areas of the crosstube for a crack. If there is a crack, before further flight, replace the crosstube with an airworthy crosstube.

(iii) If there is no crack, following the inspection, prime and paint the inspection areas by following the Accomplishment Instructions, Part B, paragraphs 7. and 8., of the ASB. If there is any corrosion or other damage, perform the replacement or repair required in paragraph (d)(5)(iv) of this AD before priming and painting the inspection areas.

(3) Thereafter, at intervals not to exceed 200 landings, clean the crosstube inspection areas by following the Accomplishment Instructions, Part C, paragraph 1., of the ASB. Using a 10X or higher power magnifying glass and a bright light, visually inspect the clear-coated areas of the crosstube for a crack. If there is a crack, before further flight, replace the crosstube with an airworthy crosstube.

(4) Within 30 days after the effective date of this AD or before reaching a total of 10,000 landings on any crosstube, whichever occurs later, and thereafter at intervals not to exceed 2,500 landings or 12 months, whichever occurs first, determine the horizontal deflection of the crosstube from the centerline of the helicopter (BL 0.0) to the outside of the skid tubes by following the Accomplishment Instructions, Part D, paragraphs 1. and 2., of the ASB. If the crosstube measures outside any of the limits depicted in Figure 2 of the ASB, before further flight, replace the crosstube with an airworthy crosstube.

(5) Within 3 months after the effective date of this AD or before reaching a total of 12,500 landings on any crosstube, whichever occurs later, and thereafter at intervals not to exceed 5,000 landings:

(i) Remove and disassemble the landing gear assembly and crosstube to prepare for a fluorescent penetrant inspection (FPI) by following the Accomplishment Instructions, Part E.1, paragraphs 1. through 6., of the ASB.

(ii) Clean and prepare the crosstube by removing the sealant and paint as described in the Accomplishment Instructions, Part E.2, paragraphs 1. through 3. and Figure 3, of the ASB.

(iii) Perform an FPI of the crosstube in the areas depicted in Figure 3 of the ASB for a crack, any corrosion, a nick, scratch, dent, or any other damage by following the Accomplishment Instructions, Part E.3, paragraph 1., of the ASB. If there is a crack, before further flight, replace the crosstube with an airworthy crosstube.

(iv) If there is any corrosion or a nick, scratch, dent, or any other damage, before further flight, repair the crosstube to an airworthy configuration if the damage is within the maximum repair damage limits or replace the crosstube with an airworthy crosstube. Chapter 3.5 Repair, Table 1. and Figure 3 of the AAI Instructions for Continued Airworthiness for Crosstubes, Report No. AA-01136, Revision K, dated February 15, 2012, contains the maximum repair damage limits and repair procedures.

(e) Alternative Methods of Compliance (AMOC).

(1) The Manager, Rotorcraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Michael Kohner, Aviation Safety Engineer, Rotorcraft

Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5170; email 7-avs-asw-170@faa.gov.

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(f) Additional Information.

For service information identified in this AD, contact Aeronautical Accessories, Inc., P.O. Box 3689, Bristol, TN 37625-3689, telephone (423) 538-5151 or (800) 251-7094, fax (423) 538-8469, or at http://www.aero-access.com. You may review a copy of this information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(g) Subject.

Joint Aircraft Service Component (JASC) Code: 3213: Main Landing Gear Strut/Axle/Truck.

Issued in Fort Worth, Texas, on May 2, 2012.

Carlton N. Cochran,

Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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